

# BioMap and Living Waters

## Guiding Land Conservation for Biodiversity in Massachusetts

### Core Habitats of Colrain

This report and associated map provide information about important sites for biodiversity conservation in your area.

This information is intended for conservation planning, and is not intended for use in state regulations.

Produced by:  
**Natural Heritage & Endangered Species Program**  
**Massachusetts Division of Fisheries and Wildlife**  
**Executive Office of Environmental Affairs**  
**Commonwealth of Massachusetts**

Produced in 2004



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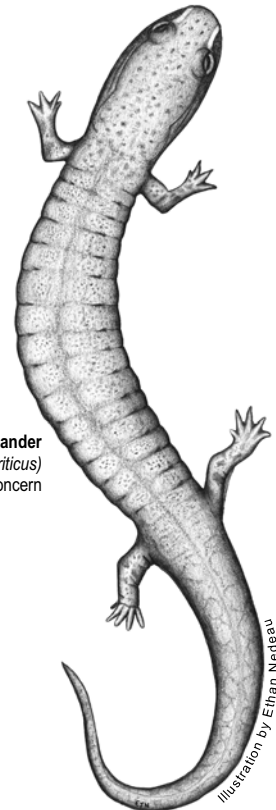
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\* Depending on the location of Core Habitats, your city or town may not have all of these sections.

**Spring Salamander**  
(*Gyrinophilus porphyriticus*)  
Species of Special Concern



*Funding for this project was made available by the Executive Office of Environmental Affairs, contributions to the Natural Heritage & Endangered Species Fund, and through the State Wildlife Grants Program of the US Fish & Wildlife Service.*



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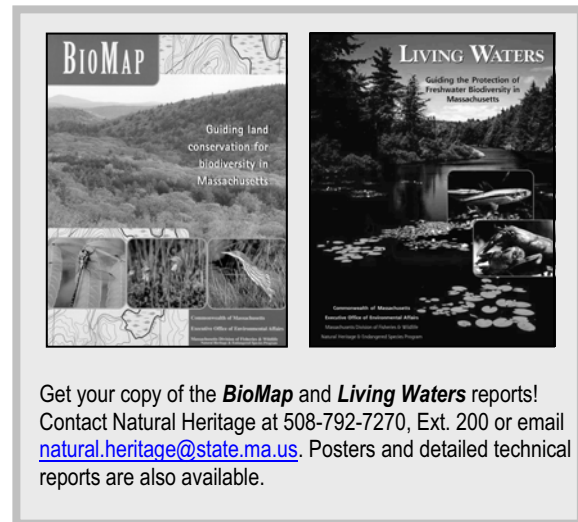
### Introduction

In this report, the Natural Heritage & Endangered Species Program provides you with site-specific biodiversity information for your area. Protecting our biodiversity today will help ensure the full variety of species and natural communities that comprise our native flora and fauna will persist for generations to come.

The information in this report is the result of two statewide biodiversity conservation planning projects, **BioMap** and **Living Waters**. The goal of the BioMap project, completed in 2001, was to identify and delineate the most important areas for the long-term viability of terrestrial, wetland, and estuarine elements of biodiversity in Massachusetts. The goal of the Living Waters project, completed in 2003, was to identify and delineate the rivers, streams, lakes, and ponds that are important for freshwater biodiversity in the Commonwealth. These two conservation plans are based on documented observations of rare species, natural communities, and exemplary habitats.

### What is a Core Habitat?

Both BioMap and Living Waters delineate **Core Habitats** that identify the most critical sites for biodiversity conservation across the state. Core Habitats represent habitat for the state's most viable rare plant and animal populations and include exemplary natural communities and aquatic habitats. Core Habitats represent a wide diversity of rare species and natural communities (see Table 1), and these areas are also thought to contain virtually all of the other described species in Massachusetts. Statewide, BioMap Core Habitats encompass 1,380,000 acres of uplands and wetlands, and Living Waters identifies 429 Core Habitats in rivers, streams, lakes, and ponds.



### Core Habitats and Land Conservation

One of the most effective ways to protect biodiversity for future generations is to protect Core Habitats from adverse human impacts through land conservation. For Living Waters Core Habitats, protection efforts should focus on the **riparian areas**, the areas of land adjacent to water bodies. A naturally vegetated buffer that extends 330 feet (100 meters) from the water's edge helps to maintain cooler water temperature and to maintain the nutrients, energy, and natural flow of water needed by freshwater species.

### In Support of Core Habitats

To further ensure the protection of Core Habitats and Massachusetts' biodiversity in the long-term, the BioMap and Living Waters projects identify two additional areas that help support Core Habitats.

In BioMap, areas shown as **Supporting Natural Landscape** provide buffers around the Core Habitats, connectivity between Core Habitats, sufficient space for ecosystems to function, and contiguous undeveloped habitat for common species. Supporting Natural Landscape was



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generated using a Geographic Information Systems (GIS) model, and its exact boundaries are less important than the general areas that it identifies. Supporting Natural Landscape represents potential land protection priorities once Core Habitat protection has been addressed.

In Living Waters, *Critical Supporting Watersheds* highlight the immediate portion of the watershed that sustains, or possibly degrades, each freshwater Core Habitat. These areas were also identified using a GIS model. Critical Supporting Watersheds represent developed and undeveloped lands, and can be quite large. Critical Supporting Watersheds can be helpful in land-use planning, and while they are not shown on these maps, they can be viewed in the Living Waters report or downloaded from [www.mass.gov/mgis](http://www.mass.gov/mgis).

## Understanding Core Habitat Species, Community, and Habitat Lists

### What's in the List?

Included in this report is a list of the species, natural communities, and/or aquatic habitats for each Core Habitat in your city or town. The lists are organized by Core Habitat number.

For the larger Core Habitats that span more than one town, the species and community lists refer to the entire Core Habitat, not just the portion that falls within your city or town. For a list of all the state-listed rare species within your city or town's boundary, whether or not they are in Core Habitat, please see the town rare species lists available at [www.nhesp.org](http://www.nhesp.org).

The list of species and communities within a Core Habitat contains only the species and

**Table 1.** The number of rare species and types of natural communities explicitly included in the BioMap and Living Waters conservation plans, relative to the total number of native species statewide.

BioMap		
Biodiversity Group	Species and Verified Natural Community Types	
	Included in BioMap	Total Statewide
Vascular Plants	246	1,538
Birds	21	221 breeding species
Reptiles	11	25
Amphibians	6	21
Mammals	4	85
Moths and Butterflies	52	An estimated 2,500 to 3,000
Damselflies and Dragonflies	25	An estimated 165
Beetles	10	An estimated 2,500 to 4,000
Natural Communities	92	> 105 community types
Living Waters		
Biodiversity Group	Species	
	Included in Living Waters	Total Statewide
Aquatic Vascular Plants	23	114
Fishes	11	57
Mussels	7	12
Aquatic Invertebrates	23	An estimated > 2500

natural communities that were explicitly included in a given BioMap or Living Waters Core Habitat. Other rare species or examples of other natural communities may fall within the Core Habitat, but for various reasons are not included in the list. For instance, there are a few rare species that are omitted from the list or summary because of their particular sensitivity to the threat of collection. Likewise, the content of many very small Core Habitats are not described in this report or list, often because they contain a single location of a rare plant



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species. Some Core Habitats were created for suites of common species, such as forest birds, which are particularly threatened by habitat fragmentation. In these cases, the individual common species are not listed.

### What does 'Status' mean?

The Division of Fisheries and Wildlife determines a status category for each rare species listed under the Massachusetts Endangered Species Act, M.G.L. c.131A, and its implementing regulations, 321 CMR 10.00. Rare species are categorized as Endangered, Threatened, or of Special Concern according to the following:

- **Endangered** species are in danger of extinction throughout all or a significant portion of their range or are in danger of extirpation from Massachusetts.
- **Threatened** species are likely to become Endangered in Massachusetts in the foreseeable future throughout all or a significant portion of their range.
- **Special Concern** species have suffered a decline that could threaten the species if allowed to continue unchecked or occur in such small numbers or with such restricted distribution or specialized habitat requirements that they could easily become Threatened in Massachusetts.

In addition, the Natural Heritage & Endangered Species Program maintains an unofficial **watch list** of plants that are tracked due to potential conservation interest or concern, but are not regulated under the Massachusetts Endangered Species Act or other laws or regulations. Likewise, described natural communities are not regulated any laws or regulations, but they can help to identify ecologically important areas that are worthy of protection. The status of natural

### Legal Protection of Biodiversity

BioMap and Living Waters present a powerful vision of what Massachusetts would look like with full protection of the land that supports most of our biodiversity. To create this vision, some populations of state-listed rare species were deemed more likely to survive over the long-term than others.

Regardless of their potential viability, all sites of state-listed species have full legal protection under the Massachusetts Endangered Species Act (M.G.L. c.131A) and its implementing regulations (321 CMR 10.00). Habitat of state-listed wildlife is also protected under the Wetlands Protection Act Regulations (310 CMR 10.37 and 10.59). The **Massachusetts Natural Heritage Atlas** shows **Priority Habitats**, which are used for regulation under the Massachusetts Endangered Species Act and Massachusetts Environmental Policy Act (M.G.L. c.30) and **Estimated Habitats**, which are used for regulation of rare wildlife habitat under the Wetlands Protection Act. For more information on rare species regulations, see the *Massachusetts Natural Heritage Atlas*, available from the Natural Heritage & Endangered Species Program in book and CD formats.

BioMap and Living Waters are conservation planning tools and do not, in any way, supplant the Estimated and Priority Habitat Maps which have regulatory significance. Unless and until the combined BioMap and Living Waters vision is fully realized, we must continue to protect all populations of our state-listed species and their habitats through environmental regulation.

communities reflects the documented number and acreages of each community type in the state:

- **Critically Imperiled** communities typically have 5 or fewer documented sites or have very few remaining acres in the state.
- **Imperiled** communities typically have 6-20 sites or few remaining acres in the state.
- **Vulnerable** communities typically have 21-100 sites or limited acreage across the state.
- **Secure** communities typically have over 100 sites or abundant acreage across the state; however excellent examples are identified as Core Habitat to ensure continued protection.



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### Understanding Core Habitat Summaries

Following the BioMap and Living Waters Core Habitat species and community lists, there is a descriptive summary of each Core Habitat that occurs in your city or town. This summary highlights some of the outstanding characteristics of each Core Habitat, and will help you learn more about your city or town's biodiversity. You can find out more information about many of these species and natural communities by looking at specific *fact sheets* at [www.nhesp.org](http://www.nhesp.org).

### Next Steps

BioMap and Living Waters were created in part to help cities and towns prioritize their land protection efforts. While there are many reasons to conserve land – drinking water protection, recreation, agriculture, aesthetics, and others – BioMap and Living Waters Core Habitats are especially helpful to municipalities seeking to protect the rare species, natural communities, and overall biodiversity within their boundaries. Please use this report and map along with the rare species and community fact sheets to appreciate and understand the biological treasures in your city or town.

### Protecting Larger Core Habitats

Core Habitats vary considerably in size. For example, the average BioMap Core Habitat is 800 acres, but Core Habitats can range from less than 10 acres to greater than 100,000 acres. These larger areas reflect the amount of land needed by some animal species for breeding, feeding, nesting, overwintering, and long-term survival. Protecting areas of this size can be

very challenging, and requires developing partnerships with neighboring towns.

Prioritizing the protection of certain areas within larger Core Habitats can be accomplished through further consultation with Natural Heritage Program biologists, and through additional field research to identify the most important areas of the Core Habitat.

### Additional Information

If you have any questions about this report, or if you need help protecting land for biodiversity in your community, the Natural Heritage & Endangered Species Program staff looks forward to working with you.

Contact the Natural Heritage & Endangered Species Program:

*by Phone* 508-792-7270, Ext. 200

*by Fax:* 508-792-7821

*by Email:* [natural.heritage@state.ma.us](mailto:natural.heritage@state.ma.us).

*by Mail:* North Drive  
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The GIS datalayers of BioMap and Living Waters Core Habitats are available for download from MassGIS: [www.mass.gov/mgis](http://www.mass.gov/mgis)

Check out [www.nhesp.org](http://www.nhesp.org) for information on:

- Rare species in your town
- Rare species fact sheets
- BioMap and Living Waters projects
- Natural Heritage publications, including:
  - \* Field guides
  - \* Natural Heritage Atlas, and more!



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# BioMap: Species and Natural Communities

## Colrain

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### Core Habitat BM80

#### Natural Communities

<u>Common Name</u>	<u>Scientific Name</u>	<u>Status</u>
Acidic Graminoid Fen		Vulnerable
Northern Hardwoods - Hemlock - White Pine Forest		Secure
Riverside Rock Outcrop		Vulnerable

#### Plants

<u>Common Name</u>	<u>Scientific Name</u>	<u>Status</u>
Slender Cottongrass	<i>Eriophorum gracile</i>	Threatened

#### Invertebrates

<u>Common Name</u>	<u>Scientific Name</u>	<u>Status</u>
Beaver Pond Clubtail	<i>Gomphus borealis</i>	Special Concern
Ocellated Darner	<i>Boyeria grafiana</i>	Special Concern

### Core Habitat BM115

#### Natural Communities

<u>Common Name</u>	<u>Scientific Name</u>	<u>Status</u>
Northern Hardwoods - Hemlock - White Pine Forest		Secure

### Core Habitat BM116

#### Natural Communities

<u>Common Name</u>	<u>Scientific Name</u>	<u>Status</u>
Cobble Bar Forest		Imperiled
High-Energy Riverbank		Vulnerable



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# BioMap: Species and Natural Communities

## Colrain

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### Core Habitat BM122

#### Natural Communities

<u>Common Name</u>	<u>Scientific Name</u>	<u>Status</u>
Cobble Bar Forest		Imperiled
High-Energy Riverbank		Vulnerable

### Core Habitat BM124

#### Natural Communities

<u>Common Name</u>	<u>Scientific Name</u>	<u>Status</u>
Rich, Mesic Forest Community		Vulnerable

#### Plants

<u>Common Name</u>	<u>Scientific Name</u>	<u>Status</u>
Small Site for Rare Plant		

### Core Habitat BM160

#### Natural Communities

<u>Common Name</u>	<u>Scientific Name</u>	<u>Status</u>
Northern Hardwoods - Hemlock - White Pine Forest		Secure

### Core Habitat BM161

#### Natural Communities

<u>Common Name</u>	<u>Scientific Name</u>	<u>Status</u>
Rich, Mesic Forest Community		Vulnerable

#### Plants

<u>Common Name</u>	<u>Scientific Name</u>	<u>Status</u>
Barren Strawberry	<i>Waldsteinia fragarioides</i>	Special Concern
Woodland Millet	<i>Milium effusum</i>	Threatened



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# BioMap: Species and Natural Communities

## Colrain

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### Core Habitat BM176

#### Plants

Common Name

Scientific Name

Status

Small Site for Rare Plant

### Core Habitat BM191

#### Vertebrates

Common Name

Scientific Name

Status

Spring Salamander

*Gyrinophilus porphyriticus*

Special Concern

### Core Habitat BM198

#### Natural Communities

Common Name

Scientific Name

Status

Rich, Mesic Forest Community

Vulnerable

#### Plants

Common Name

Scientific Name

Status

Small Site for Rare Plant

### Core Habitat BM200

#### Plants

Common Name

Scientific Name

Status

Small Site for Rare Plant

### Core Habitat BM242

#### Natural Communities

Common Name

Scientific Name

Status

Sensitive Natural Community



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# BioMap: Species and Natural Communities

## Colrain

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### Plants

Common Name

Scientific Name

Status

Small Site for Rare Plant

### Core Habitat BM244

### Plants

Common Name

Scientific Name

Status

Small Site for Rare Plant

### Core Habitat BM252

### Plants

Common Name

Scientific Name

Status

Dwarf Scouring-Rush

*Equisetum scirpoides*

Special Concern

Leafy White Orchis

*Platanthera dilatata*

Threatened

### Core Habitat BM257

### Plants

Common Name

Scientific Name

Status

Small Site for Rare Plant

**Core Habitat BM80, BM107, BM108, BM129, BM135, BM140, BM159, BM161, BM207, BM214, BM220, BM225, BM237, BM244, and BM257**

### Communities

High-Energy Riverbank

Vulnerable



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# BioMap: Core Habitat Summaries

## Colrain

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### Core Habitat BM80

This Core Habitat encompasses a section of the Green River and its tributaries, as well as bordering wetlands and forested uplands. These areas support rare dragonflies like the Ocellated Darner, and rare plants such as Slender Cottongrass. The Core Habitat contains exemplary natural communities, including High-Energy Riverbank and Riverside Rock Outcrop communities along the Green River.

#### Natural Communities

This Core Habitat includes one of the state's largest known occurrences of Northern Hardwoods-Hemlock-White Pine Forest. Northern Hardwoods-Hemlock-White Pine Forests have a mix of evergreen and deciduous trees, with a closed, full canopy, and sparse shrub and herbaceous layers. They commonly occur on north facing slopes and ravines with moderately acidic soils. Here the forest is diverse, showing some of the characteristics of a mature forest, such as canopy gaps, downed logs, and regeneration of canopy species. It is well-buffered within over 2500 acres of naturally vegetated land. This Core Habitat also contains a small Acidic Graminoid Fen in a larger wetland complex that is completely buffered by upland forest. Acidic Graminoid Fens are sedge and Sphagnum-dominated acidic peatlands that experience some groundwater and/or surface water flow but no calcareous seepage. Standing water is often present throughout much of the growing season. The fen here has excellent species diversity and no disturbances. Finally, there is a series of very good quality High-Energy Riverbank and Riverside Rock Outcrop communities along the river; these communities are also well-buffered by the surrounding forest.

#### Plants

The largest population of the Threatened Slender Cottongrass in Massachusetts is found in high-quality habitat within this Core Habitat.

#### Invertebrates

This Core Habitat includes a 2.5-km stretch of the Green River and associated upland streams and other wetlands to the east that are habitat for rare dragonflies such as the Ocellated Darner and the Beaver Pond Clubtail. The Core Habitat includes unfragmented, forested uplands around the wetland habitats that protect them from pollution. Other than a relatively small tract of municipal land, it appears that this Core Habitat is unprotected.

### Core Habitat BM115

#### Natural Communities

This Core Habitat contains a large tract of mature and diverse Northern Hardwoods-Hemlock-White Pine Forest. Northern Hardwoods-Hemlock-White Pine Forests have a mix of evergreen and deciduous trees, with a closed, full canopy, and sparse shrub and herbaceous layers. They commonly occur on north facing slopes and ravines with moderately acidic soils. Here the forest occurs on very steep slopes above the North River and is relatively inaccessible.



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# BioMap: Core Habitat Summaries

## Colrain

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### Core Habitat BM116

#### Natural Communities

This Core Habitat is part of a complex that includes several small sections of a High-Energy Riverbank community. This community type is a kind of sparse, open graminoid community found on cobble bars along fast-flowing rivers that experience severe flooding and ice scour. Here this High-Energy Riverbank community is well-buffered in a large roadless and naturally vegetated area. This Core Habitat also includes the Cobble Bar Forest islands within the North River. Cobble Bar Forests are found on bands of cobble-sized rocks deposited by powerful rivers during annual flood events. They are characterized by open forests of stunted Sycamores and Cottonwoods growing on sandy cobble bars. Here the Cobble Bar Forests contain diverse plant species and vegetation structure and their natural flood-scour regime is intact.

### Core Habitat BM122

#### Natural Communities

This Core Habitat is part of a complex that includes several small sections of a High-Energy Riverbank community. This community type is a kind of sparse, open graminoid community found on cobble bars along fast-flowing rivers that experience severe flooding and ice scour. Here this High-Energy Riverbank community is well-buffered in a large roadless and naturally vegetated area. This Core Habitat also includes the Cobble Bar Forest islands within the North River. Cobble Bar Forests are found on bands of cobble-sized rocks deposited by powerful rivers during annual flood events. They are characterized by open forests of stunted Sycamores and Cottonwoods growing on sandy cobble bars. Here the Cobble Bar Forests contain diverse plant species and vegetation structure and their natural flood-scour regime is intact.

### Core Habitat BM124

#### Natural Communities

This Core Habitat contains a small pocket of Rich, Mesic Forest that is well-buffered by forested land. Rich, Mesic Forests are a variant of northern hardwood forests dominated by Sugar Maple with a diverse herbaceous layer and many spring ephemerals, unusual plants that appear only in spring, in a moist, nutrient-rich environment.

### Core Habitat BM141

#### Natural Communities

This Core Habitat is part of a series that contains unique Riverside Rock Outcrops, communities that consist of sparsely vegetated areas in crevices on riverside rock outcrops where soil accumulates. Here these communities support large assemblages of high-boreal and arctic-alpine bryophytes (mosses and their allies) that are disjunct from the bulk of these species' ranges. Despite extensive searching, no other location in New England has been identified for these species.



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# BioMap: Core Habitat Summaries

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### Core Habitat BM160

#### Natural Communities

This Core Habitat includes one of the state's largest known occurrences of Northern Hardwoods-Hemlock-White Pine Forest. Northern Hardwoods-Hemlock-White Pine Forests have a mix of evergreen and deciduous trees, with a closed, full canopy, and sparse shrub and herbaceous layers. They commonly occur on north facing slopes and ravines with moderately acidic soils. Here the forest is diverse, showing some of the characteristics of a mature forest, such as canopy gaps, downed logs, and regeneration of canopy species. It is well-buffered within over 2500 acres of naturally vegetated land.

### Core Habitat BM161

#### Natural Communities

This Core Habitat is part of a series that contains unique Riverside Rock Outcrops, communities that consist of sparsely vegetated areas in crevices on riverside rock outcrops where soil accumulates. Here these communities support large assemblages of high-boreal and arctic-alpine bryophytes (mosses and their allies) that are disjunct from the bulk of these species' ranges. Despite extensive searching, no other location in New England has been identified for these species. This Core Habitat also contains a relatively small but very diverse Rich, Mesic Forest associated with rare plant species. Rich, Mesic Forests are a variant of northern hardwood forests dominated by Sugar Maple with a diverse herbaceous layer and many spring ephemerals, unusual plants that appear only in spring, in a moist, nutrient-rich environment. Here the species-rich forest is immediately surrounded by a large tract of Northern Hardwoods-Hemlock Forest, which is embedded in over 2000 acres of naturally forested land.

#### Plants

A very high-quality population of the rare Barren Strawberry is growing in forest areas near the Green River. The Barren Strawberry is actually not a strawberry at all, but has leaves that resemble a strawberry. This plant is usually found in moist woodland conditions.

### Core Habitat BM191

#### Vertebrates

This Core Habitat contains large areas of suitable riparian habitat for Spring Salamanders along several miles of coldwater high gradient brooks and associated headwater seeps and springs flowing out of the Catamount Hills in Colrain. Included are sections of Johnson, Cary, Meadow, Holden, and Houghton brooks, as well as portions of several unnamed brooks. Although over half of this Core Habitat is protected within Catamount State Forest, substantial stretches of Spring Salamander habitat in the southwestern, southeastern, and northern parts of the Core Habitat are currently unprotected.



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# BioMap: Core Habitat Summaries

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### Core Habitat BM198

#### Natural Communities

A moderate-sized Rich, Mesic Forest occurs on this steeply sloping hillside. Rich, Mesic Forests are a variant of northern hardwood forests dominated by Sugar Maple with a diverse herbaceous layer and many spring ephemerals, unusual plants that appear only in spring, in a moist, nutrient-rich environment. Although the community here is near a small village and several paved roads, it is free of invasive exotic species and major disturbances.

### Core Habitat BM211

#### Natural Communities

This Core Habitat is part of a series that contains unique Riverside Rock Outcrops, communities that consist of sparsely vegetated areas in crevices on riverside rock outcrops where soil accumulates. Here these communities support large assemblages of high-boreal and arctic-alpine bryophytes (mosses and their allies) that are disjunct from the bulk of these species' ranges. Despite extensive searching, no other location in New England has been identified for these species.

### Core Habitat BM239

#### Natural Communities

This Core Habitat is part of a series that contains unique Riverside Rock Outcrops, communities that consist of sparsely vegetated areas in crevices on riverside rock outcrops where soil accumulates. Here these communities support large assemblages of high-boreal and arctic-alpine bryophytes (mosses and their allies) that are disjunct from the bulk of these species' ranges. Despite extensive searching, no other location in New England has been identified for these species.

### Core Habitat BM242

#### Natural Communities

This Core Habitat in Colrain contains quality high forest habitats for a variety of Massachusetts' plants and animals.

### Core Habitat BM252

#### Plants

The state's largest population of the Dwarf Scouring-Rush, a diminutive, primitive plant which does not produce flowers or seeds, grows in moist forest habitat in this Core Habitat. Another rare plant, the Leafy White Orchis, grows here near the southern limit of its range.



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# BioMap: Core Habitat Summaries

## Colrain

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**Core Habitat BM80, BM107, BM108, BM129, BM135, BM140, BM159, BM161, BM207, BM214, BM220, BM225, BM237, BM244, and BM257**

### Natural Communities

This series of Core Habitats includes a species-rich High-Energy Riverbank with an intact natural flood and scour regime. High-Energy Riverbank communities are sparse, open graminoid communities found on cobble and sand deposits along fast-flowing rivers that experience severe flooding and ice scour. Here this long riverside community is on the edge of over 2500 acres of naturally forested land.



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# Living Waters: Species and Habitats

## Colrain

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### Core Habitat LW118

#### Fishes

Common Name

Longnose Sucker

Scientific Name

*Catostomus catostomus*

Status

Special Concern

### Core Habitat LW120

#### Exemplary Habitats

Common Name

Fish Habitat

Scientific Name

Status

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#### Fishes

Common Name

Longnose Sucker

Scientific Name

*Catostomus catostomus*

Status

Special Concern

### Core Habitat LW126

#### Fishes

Common Name

Longnose Sucker

Scientific Name

*Catostomus catostomus*

Status

Special Concern

### Core Habitat LW241

#### Exemplary Habitats

Common Name

Invertebrate Habitat

Scientific Name

Status

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### Core Habitat LW404

#### Exemplary Habitats

Common Name

Invertebrate Habitat

Scientific Name

Status

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# Living Waters: Species and Habitats

## Colrain

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### Core Habitat LW405

#### Exemplary Habitats

Common Name

Scientific Name

Status

Invertebrate Habitat

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# Living Waters: Core Habitat Summaries

## Colrain

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### Core Habitat LW118

This section of the West Branch of the North River and its tributaries in Heath and Colrain support the Longnose Sucker, a fish Species of Special Concern. This species is restricted to the western watersheds of Massachusetts, where it is found in cold, clean, oxygen-rich streams with gravel bottoms. The Longnose Sucker sometimes migrates many miles to reach its spawning grounds. The eggs are released over the gravel bottom, making them susceptible to excess sedimentation, flow alterations, and increases in water temperature. These habitat degradations can be particularly detrimental to the reproductive success of this slow-growing fish that does not reach maturity until 5 to 7 years of age. Protecting the riparian areas adjacent to this Core Habitat will help maintain the cool, clean freshwater habitat of the Longnose Sucker.

### Core Habitat LW120

This Core Habitat in the East Branch of the North River and its tributaries, as well as in Taylor Brook and into the West Branch of the North River, supports the rare Longnose Sucker. This fish species is restricted to the western watersheds of Massachusetts, where it is found in cold, clean, oxygen-rich streams with gravel bottoms. The Longnose Sucker sometimes migrates many miles to reach its spawning grounds. The eggs are released over the gravel bottom, making them susceptible to excess sedimentation, flow alterations, and increases in water temperature. These habitat degradations can be particularly detrimental to the reproductive success of this slow-growing fish that does not reach maturity until 5 to 7 years of age.

The West Branch of the North River at the confluence of Taylor Brook is also an excellent example of a high gradient, cold water, moderately flowing, and well-oxygenated freshwater habitat. Here the primarily native fish community consists of Blacknose Dace, Brook Trout, Longnose Dace, Slimy Sculpin, and Longnose Sucker. Protecting the riparian areas adjacent to this Core Habitat will help maintain its cool, clean freshwater habitats.

### Core Habitat LW126

From this section of North River and its tributaries into the Deerfield River, this Core Habitat supports the Longnose Sucker, a fish Species of Special Concern. This species is restricted to the western watersheds of Massachusetts, where it is found in cold, clean, oxygen-rich streams with gravel bottoms. The Longnose Sucker sometimes migrates many miles to reach its spawning grounds. The eggs are released over the gravel bottom, making them susceptible to excess sedimentation, flow alterations, and increases in water temperature. These habitat degradations can be particularly detrimental to the reproductive success of this slow-growing fish that does not reach maturity until 5 to 7 years of age. Protecting the riparian areas adjacent to this Core Habitat will help maintain the cool, clean freshwater habitat of the Longnose Sucker.

### Core Habitat LW241

This stretch of the Green River and its tributary flows through an undeveloped, forested area. This site is home to a species of rare dragonfly, the Ocellated Darner, which is an indicator of high-quality, rocky, and fast-flowing river habitat in western Massachusetts. Just across the border in Vermont, a tributary to the Green River supports a healthy community of the more



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# Living Waters: Core Habitat Summaries

## Colrain

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ecologically sensitive aquatic insects: mayflies, stoneflies, and caddisflies. The presence of this invertebrate community indicates these stream habitats are relatively free of the impacts of development. Naturally vegetated stream banks along the Core Habitat and upstream help maintain the habitat quality, shading the water to keep it cool and controlling the runoff of sediments, excess nutrients, and water.

### Core Habitat LW404

Foundry Brook supports a healthy community of the more ecologically sensitive aquatic insects: mayflies, stoneflies, and caddisflies. The presence of this invertebrate community indicates the stream habitats here are relatively free of the impacts of development. Naturally vegetated stream banks along the Core Habitat and upstream help maintain the habitat quality, shading the water to keep it cool and controlling the runoff of sediments, excess nutrients, and water.

### Core Habitat LW405

Tissdell Brook supports a healthy community of the more ecologically sensitive aquatic insects: mayflies, stoneflies, and caddisflies. The presence of this invertebrate community indicates the stream habitats here are relatively free of the impacts of development. Naturally vegetated stream banks along the Core Habitat and upstream help maintain the habitat quality, shading the water to keep it cool and controlling the runoff of sediments, excess nutrients, and water.



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